Wireless E-Health (WEHealth) and Its Potentials to the AAL in Aging Society

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WTI Institute

Set up at Jul. 1998: Currently around 250 faculties and students

Research Areas: Wireless key techniques of 3G and B3G, including PHY layer, network layer, service environment, system Optimization and demo system building

Participated EU FP6 Projects: E2R, INSTINCT, etc
The proportion of elderly population (60 years old)

- **1999**
  - China: 126 million
  - Asia: 314 million
  - World: 593 million

- **2050**
  - China: 410 million
  - Asia: 1.24 billion
  - World: 1.97 billion
eHealth in China --- Current Status

- Nation-wide
  - ePopulation & eHealth
    - National Projects
    - National 863 Program: Key Technologies and Core Equipment Research in Digital Medical Treatment
    - The Investigation of People’s Demand and Acceptability in urban and rural areas in Western China
    - Beijing Science Foundation Projects
  - eHospital
    - HIS, HER, PACS, RIS, WLAN, ...

- Hospital-wide
  - eHospital

- Enterprise-wide
  - Enterprises, Enterprise Solutions & eHealth Products

- Community-wide
  - eCommunity & Homecare

Beijing University of Posts and Telecommunications
An Investigation on e-Health in China

Expected Health Service Types

Electronic Products Used/Heard of

NetW: Emergency cure via telephone networks
CellE: Browse medical expenditure via cellphone or computer
CellII: Browse hospital & doc info via cellphone or computer
Guide: Healthcare related guidance & consultation
HR: Establish Health Record
Online: Consult expert online
Taught: Taught healthcare knowledge

BTR: Broadcast/TV/Radio
Mobile: Mobile phone
DC: Digital Camera
ComIn: Computer/Internet
BU: B ultrasonic
EH: Electronic hemodynamometer
CT: Computed Tomography
EHR: Electronic Health Record
ECard: Credit card/Medical security card
WEHealth based AAL

Sensor networks around people for collecting real time healthy information

Alert or some other medical related service

Real time monitoring via service based on context aware service and expert system
User-centered AAL Systems and Services
Context Based Demo Environment Built in WTI